

CLAIMS

1. Battery terminal for a battery case, said case having a wall defining an inner surface of said case and an outer surface of said case and an aperture extending between said inner surface of said case and said outer surface of said case, said terminal including a barrel portion defining an outer circumferential surface, said barrel portion extending through said aperture, one end of said barrel portion terminating in an outwardly projecting section projecting from said outer surface of the case when the barrel portion is installed in said aperture and a circumferentially extending, radially outwardly projecting shoulder on the other end of said barrel portion, said shoulder engaging said inner surface of said case when the barrel portion is installed in said aperture, and an annular retaining ring installed on the outwardly projecting section of the barrel portion after the barrel portion is installed in said aperture and having an inner circumferential surface secured to the outer circumferential surface of said barrel portion, said retaining ring cooperating with said barrel portion to define a radially projecting surface therebetween engaging said outer surface of the case.

2. Battery terminal for a battery case as claimed in claim 1, wherein a circumferentially extending seal carried on said shoulder and circumscribing said barrel portion sealingly engages said shoulder and said inner surface of said case to resist leakage from said case through said aperture.

3. Battery terminal for a battery as claimed in claim 1, wherein said outer circumferential surface of the barrel portion and the inner circumferential surface of said retaining ring are dimensioned to permit the retaining ring to be received on said barrel portion with an interference fit therebetween.

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4. Battery terminal for a battery as claimed in claim 1, wherein said retaining ring is welded to said barrel portion.

5 5. Battery terminal for a battery as claimed in claim 1, wherein said outer circumferential surface of the barrel portion and the inner circumferential surface of said retaining ring are dimensioned to permit the retaining ring to be received on said barrel portion with an interference fit therebetween, the interface between said retaining ring and said barrel portion being fused together.

5 6. Battery terminal for a battery as claimed in claim 1, wherein said outer circumferential surface of the barrel portion and the inner circumferential surface of said retaining ring are dimensioned to permit the retaining ring to be received on said barrel portion with an interference fit therebetween, the interface between said retaining ring and said barrel portion being welded together with the retaining ring engaging the outer surface of said case.

7. Battery terminal for a battery as claimed in claim 1, wherein said retaining ring is welded to said barrel portion together with the retaining ring engaging the outer surface of said case.

5 8. Method of installing a battery terminal on a battery case comprising the steps of providing a battery case having an inner surface and an outer surface with an aperture extending between the inner surface and the outer surface, inserting a terminal into said aperture from said inner surface such that a projecting portion of the terminal extends from said outer surface of the battery case and a shoulder on said terminal engages said inner surface of the battery case, and installing a retaining ring on said projecting portion of said terminal.

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9. Method as claimed in claim 8, wherein an interference fit exists between the retaining ring and said projecting portion, said method including the step of forcing said retaining ring onto said projecting portion into an intermediate position offset from a final seated position engaging said outer surface of said case.

10. Method as claimed in claim 9, including the step of heating the interface between said retaining ring and said projecting portion, and pressing said retaining ring into the final seated position.

11. Method as claimed in claim 10, wherein said interface is heated by passing an electrical current through said retaining ring and said projecting portion while pressing said retaining ring into said final seated position.

12. Method as claimed in claim 11, wherein said retaining ring and said projecting portion fuse as they are heated by said electric current.

13. Method as claimed in claim 8, wherein the interface between the annular ring and said projecting portion is softened to permit fusing of the projecting portion and the annular ring.

14. Method as claimed in claim 13, wherein said interface is softened by heating said components at said interface.

15. Method as claimed in claim 13, wherein an electrical current is passed through said annular ring and said projecting portion to soften said components at said interface.

16. Method as claimed in claim 15, wherein said retaining ring is pressed into a final seated position engaging said outer surface of said case

as said current is passed through said retaining ring and said projecting portion.

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